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ENGINEERING DATA TRANSMITTAL

Page 1 of 1
1. EDT 633957

2. To: (Receiving Organization) Distribution	3. From: (Originating Organization) Data Development & Interpretation	4. Related EDT No.: N/A
5. Proj./Prog./Dept./Div.: RPP/Engr./PC/Process Engineering	6. Design Authority/Design Agent/Cog. Engr.: M. R. Adams	7. Purchase Order No.: N/A
8. Originator Remarks: This document is being released into the supporting document system for retrievability purposes.		9. Equip./Component No.: N/A
		10. System/Bldg./Facility: N/A
		12. Major Assm. Dwg. No.: N/A
11. Receiver Remarks: N/A	11A. Design Baseline Document? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	13. Permit/Permit Application No.: N/A
		14. Required Response Date: N/A

15. DATA TRANSMITTED					(F)	(G)	(H)	(I)
(A) Item No.	(B) Document/Drawing No.	(C) Sheet No.	(D) Rev. No.	(E) Title or Description of Data Transmitted	Approval Designator	Reason for Transmittal	Originator Disposition	Receiver Disposition
1	RPP-10474	N/A	0	Meeting Report;	N/A	2	1	1
				Characterization Sampling				
				Priorities Facilitated				
				Workshop				

16. KEY		
Approval Designator (F)	Reason for Transmittal (G)	Disposition (H) & (I)
E, S, O, D OR N/A (See WHC-CM-3-5, Sec. 12.7)	1. Approval 2. Release 3. Information 4. Review 5. Post-Review 6. Dist. (Receipt Acknow. Required)	1. Approved 2. Approved w/comment 3. Disapproved w/comment 4. Reviewed no/comment 5. Reviewed w/comment 6. Receipt acknowledged

17. SIGNATURE/DISTRIBUTION (See Approval Designator for required signatures)											
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		Design Authority									
		Design Agent									
2	1	Cog. Eng. M. R. Adams	<i>M. R. Adams</i>	03/26/02							
2	1	Cog. Mgr. G. A. Stanton	<i>G. A. Stanton</i>		1						
		QA									
		Safety									
		Env.									

18. Signature of EDT Originator <i>M. E. Van Dorn</i> M. E. Van Dorn Date 3/26/02	19. Authorized Representative for Receiving Organization N/A Date	20. Design Authority/Cognizant Manager <i>G. A. Stanton</i> G. A. Stanton Date 3/26/02	21. DOE APPROVAL (if required) Ctrl No. _____ <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/comments <input type="checkbox"/> Disapproved w/comments
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To Distribution	From Data Development & Interpretation	Page 1 of 2			
Project Title/Work Order RPP-10474, Rev. 0, "Meeting Report; Characterization Sampling Priorities Facilitated Workshop"		Date 03/25/02			
		EDT No. EDT-633957			
		ECN No. N/A			
Name	MSIN	Text With All Attach.	Text Only	Attach./ Appendix Only	EDT/ECN Only
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[illegible]

Meeting Report; Characterization Sampling Priorities Facilitated Workshop

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U.S. Department of Energy Contract DE-AC27-99RL14047

EDT/ECN: EDT-633957

UC: 2070

Cost Center: 7G300

Charge Code: 7899-10

B&R Code: EW 3120074

Total Pages: 10


Key Words: Meeting Report, Workshop Report, Characterization, Facilitated Workshop, Workshop Report

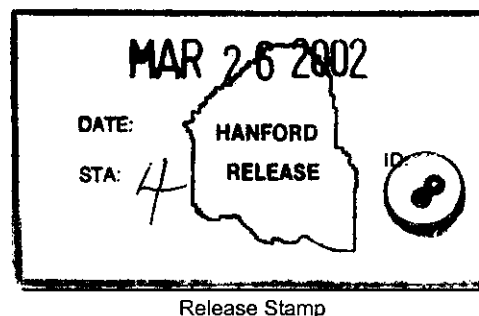
Abstract:

Results of a facilitated planning workshop wherein all tank programs and projects were identified, and issues and needs were prioritized, for tank waste characterization data.

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 3/26/02
Release Approval Date



Approved For Public Release

Meeting Report
Characterization Sampling Priorities Facilitated Workshop
Identification and Prioritization of Characterization Issues
For Fiscal Year 2003

March 2002

Prepared by:

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1.0 Background

Each year a facilitated workshop is held with representatives of programs and projects who may need characterization sampling support in the next fiscal year and beyond. The workshop for planning the fiscal year 2003 sampling issues was held on March 13, 2002 at 2440 Stevens Center. The workshop is a necessary first step in the preparation of the *Characterization Sampling Priorities Document (CSPD)*.

2.0 Objective of the Workshop

The objective of the workshop was to identify the technical issues for fiscal year 2003 and beyond wherein characterization sampling support is needed to address the issues. A further objective of the workshop was to prioritize and establish the relative ranking of importance of the issues.

The identification and prioritization of technical issues is a necessary step in the preparation of the CSPD. The issues and priorities published in the CSPD are subsequently used to develop sampling schedules and work plans.

3.0 Workshop Attendees

The FY 2003 workshop was held on March 13, 2002 at the 2440 Stevens Center. Mr. Richard Harrington was the workshop facilitator assisted by Robin Kummer. The following individuals were in attendance:

<u>Name</u>	<u>Organization</u>
Delmar Noyes	ORP
Wen-Shou Liou	ORP
Lori Huffman	ORP
Kay Fick	ORP
Woody Russell	ORP
T. Gardner-Clayson	USACE/ORP
Brenda Jentan	Ecology
Deborah Singleton	Ecology
George Stanton	CHG
John Baldwin	CHG
Charles Mulkey	CHG
Jean Quigley	CHG
Tom Jones	CHG
Felix Miera	CHG
Duc Nguyen	CHG
Dave Banning	CHG
Dennis Washenfelder	CHG
Jim Douglas	CHG
Jim Field	CHG

<u>Name</u>	<u>Organization</u>
Mel Adams	CHG
Rex Thompson	CHG
John Appel	CHG
Juergen Rasmussen	CHG
Kelly Carothers	CHG
Nancy Hulse	CHG
Andrew Templeton	CHG
Jeff Doeler	CHG
Mike Erhart	CHG
Tom Pauly	CHG
Nancy Welliver	DMJMH&N
Harry Babad	Consultant BNI
P. J. Brackenbury	WGI-WTP
Kathy Powell	FH
Mike Neely	FH
Cary Seidel	FH

4.0 Workshop Agenda

The workshop consisted of the following major agenda items:

- Review and validate list of issues for FY 2003 and beyond
- Identify maximum benefit gained by sampling for each issue
- Conduct Nominal Group Technique to prioritize issues
- Establish relative weighting of issues
- Identify path ahead and action items.

5.0 Identification of Issues

Following review of issues from the previous year as reflected in the FY 2002 planning document, discussion was held to determine the issues to be dropped, added or modified from the FY 2002 issues list. As a result of the discussion, three of the FY 2002 issues were dropped and one new issue was added. The dropped issues were Interim Stabilization, Best Basis Inventory and Certification (ICD 19 & 20). The added issue was Single-Shell Tank (SST) In-situ Disposal.

Interim stabilization was dropped because characterization needs have already been satisfied for this issue. Certification will not become an issue until the out years when vitrification operations are pending because fresh samples are needed. Best Basis is not an independent issue for characterization, but it is embodied in other issues. SST In-Situ Disposal was added as an issue since in-situ disposal is apparently being considered for some SSTs and the characterization needs for in-situ disposal are quite unique.

The issues listed in alphabetical order were identified as follows:

FY 2003 Issues Identified
Chemistry For Corrosion Control
Evaporator Operations
High Level Waste/Low Activity Waste (HLW/LAW) Feed Data Quality Objective (DQO)
Interface Control Document-23 (ICD-23) (Waste Treatment Plant Regulatory and Process Testing)
IMUSTs (Inactive Miscellaneous Underground Storage Tanks)
Key processing parameters (e.g., Sulfate, etc.)
Miscellaneous Facilities (e.g., 244-AR, 244-CR)
Operations Sampling (tank transfers, cross-site transfers, compatibility)
PCBs
Regulatory - Air Emissions
Regulatory - Dangerous Waste
Safety Screening
SST In-situ Disposal
SST Retrieval and Closure
Waste Feed Delivery (WFD)

6.0 Maximum Benefit from Sampling Each Issue

Following identification of the issues for FY 2003 and beyond, the maximum benefit to be gained by sampling for each issue was determined. The results are shown in the following table. Please note that in the table below, the issues are arranged in alphabetical order. At this point in the workshop, the issues had not been actually prioritized.

FY 2003 Issues	Maximum Benefit
Chemistry For Corrosion Control	<ul style="list-style-type: none"> • Compliance with Authorization Basis, Tank Safety Requirements and waste chemistry control • Maintains Double-Shell Tank (DST) integrity • Extends DST life and availability for retrieval and waste feed delivery
Evaporator Operations	<ul style="list-style-type: none"> • Maintains evaporator operations and enable DST waste volume reductions • Assures Authorization Basis (AB) 242-A Compliance

FY 2003 Issues	Maximum Benefit
HLW/LAW Feed DQO	<ul style="list-style-type: none"> • Supports WTP design • Determines ability to process waste feed • Determines if stabilization feed is within contract specification • Supports strategic planning
ICD-23 (WTP Regulatory and Process Testing)	<ul style="list-style-type: none"> • Supports WTP processing and flow sheet development • Supports WTP environmental licensing and permit • Supports safety analysis • Supports waste acceptance criteria/waste form qualification variable analysis
IMUSTs	<ul style="list-style-type: none"> • Supports some early clean up • Confirms AB materials at risk
Key processing parameters (e.g., Sulfate, etc.)	<ul style="list-style-type: none"> • Confirms best basis inventories (sulfate, chrome and Pu) • Supports WTP design/optimization • Facilitates defining storage requirements • Determines program cost and schedule • Supports criticality analysis
Miscellaneous Facilities (e.g., 244-AR, 244-CR)	<ul style="list-style-type: none"> • Supports Tri-Party Agreement milestone to sample 244-AR • Supports waste transfer compatibility analysis • Provides envelope information
Operations Sampling (tank transfers, cross-site transfers, compatibility)	<ul style="list-style-type: none"> • Assures compatibility of waste transfers • Supports maximization of DST space • Supports interim stabilization • Resolves operational issues such as line plugging • Supports safe waste storage
PCBs	<ul style="list-style-type: none"> • Assures regulatory compliance including WTP waste acceptability • Responds to Office of River Protection direction to analyze for PCBs.
Regulatory - Air Emissions	<ul style="list-style-type: none"> • Assures regulatory compliance including permit applications and estimating emissions

FY 2003 Issues	Maximum Benefit
Regulatory - Dangerous Waste	<ul style="list-style-type: none"> Assures regulatory compliance including adequate storage data, generated waste shipping and disposal data, closure criteria data and waste acceptance data for WTP and evaporator
Safety Screening	<ul style="list-style-type: none"> Validates assumptions used to resolve safety issues.
SST In-Situ Disposal	<ul style="list-style-type: none"> Provides fair assessment of in-situ disposal option Provides basis for potential savings
SST Retrieval and Closure	<ul style="list-style-type: none"> Supports waste characterization after retrieval for tank lay-up or closure Quantifies remaining risk Supports evaluation of retrieval effectiveness Supports process control of retrieval (includes groundwater and vadose zone needs)
Waste Feed Delivery (WFD)	<ul style="list-style-type: none"> Supports waste feed delivery/transfer including design development; viscosity, particle size, line plugging and Waste Treatment Plant specification (envelope limit) data Provides data for initial order (phase 1) tanks

7.0 Prioritization of Issues

Following identification of issues and determination of maximum benefits of sampling, a Nominal Group Technique exercise was used to determine the rank order of importance of the issues. Each participant was asked to put on their Hanford site hat rather than their specific issue hat or, in other words, assume that they were responsible for the overall Hanford site. Each participant was given six cards and asked to select the six most important issues from the list of 15. The person then put a score of six points on the card listing the issue he or she believed to be the most important, a score of one on the least important, and so forth until all six cards had a score. During a break, the number of votes each issue received and the number of points each issue received were tabulated. The issues were rank ordered with the following results:

FY 2003 Issues	Priority
Operations Sampling (tank transfers, cross-site transfers, compatibility)	1
Chemistry for Corrosion Control (DST focus)	2
SST Retrieval and Closure	3

FY 2003 Issues	Priority
Evaporator Operations	4
SST In-situ Disposal	5
Key Processing Parameters	6
ICD-23 (WTP regulatory and process testing)	7
Waste Feed Delivery	8
Miscellaneous Facilities (244-AR, 244-CR, etc)	9
HLW/LAW Feed DQO	10
Regulatory-Dangerous Waste	11
Regulatory-Air Emissions	12
PCBs	13
Safety Screening (SST)	14
IMUSTs	15

8.0 Determination of Relative Weights of Issues

Following determination of the priority of issues, an additional exercise was done to determine the relative numeric weights of the issues. In this exercise, the participants were asked to assign an issue weight of 100 to the Operations Sampling issue—the number 1 priority issue. They were then asked to determine in their opinion the relative importance of the Chemistry for Corrosion Control issue (the number 2 issue in priority). For instance, if issue 2 were judged to be 90% as important as issue 1, the participant entered 90 as the issue weight for issue number 2. The participant then continued in like manner down the list of issues in each case assigning a relative percent importance to each issue compared to the number 1 issue, Operations Sampling.

FY 2003 Issues	Priority Number	Issue Weight
Operations Sampling (tank transfers, cross-site transfers, compatibility)	1	100
Chemistry For Corrosion Control (DST Focus)	2	92
SST Retrieval and Closure	3	88
Evaporator Operations	4	85
SST In-Situ Disposal	5	69
Key processing parameters	6	62
ICD-23 (WTP Regulatory and Process Testing)	7	53
Waste Feed Delivery (WFD)	8	48
Miscellaneous Facilities (e.g., 244-AR, 244-CR, etc.)	9	42
HLW/LAW Feed DQO	10	36
Regulatory - Dangerous Waste	11	28
Regulatory - Air Emissions	12	26
PCBs	13	21
Safety Screening (SST)	14	16
IMUSTs	15	12

The weights assigned to each issue by the participants were then averaged. The results are shown in the above table.

9.0 Future Issues

Some discussion was held as to whether vadose zone should be an active or a future issue. However, after due consideration by the participants, it was concluded that the issue certainly does not have the status of either a current issue or a definite future issue. There may be some opportunities to obtain samples that could benefit the vadose zone program in the future, but these needs are not well defined at this time.

Two additional issues were identified that may become issues in the future: certification (ICD 19 and 20) and retrieval flow sheet development. The certification issue was an issue in former years, and it may become an issue again in the future.